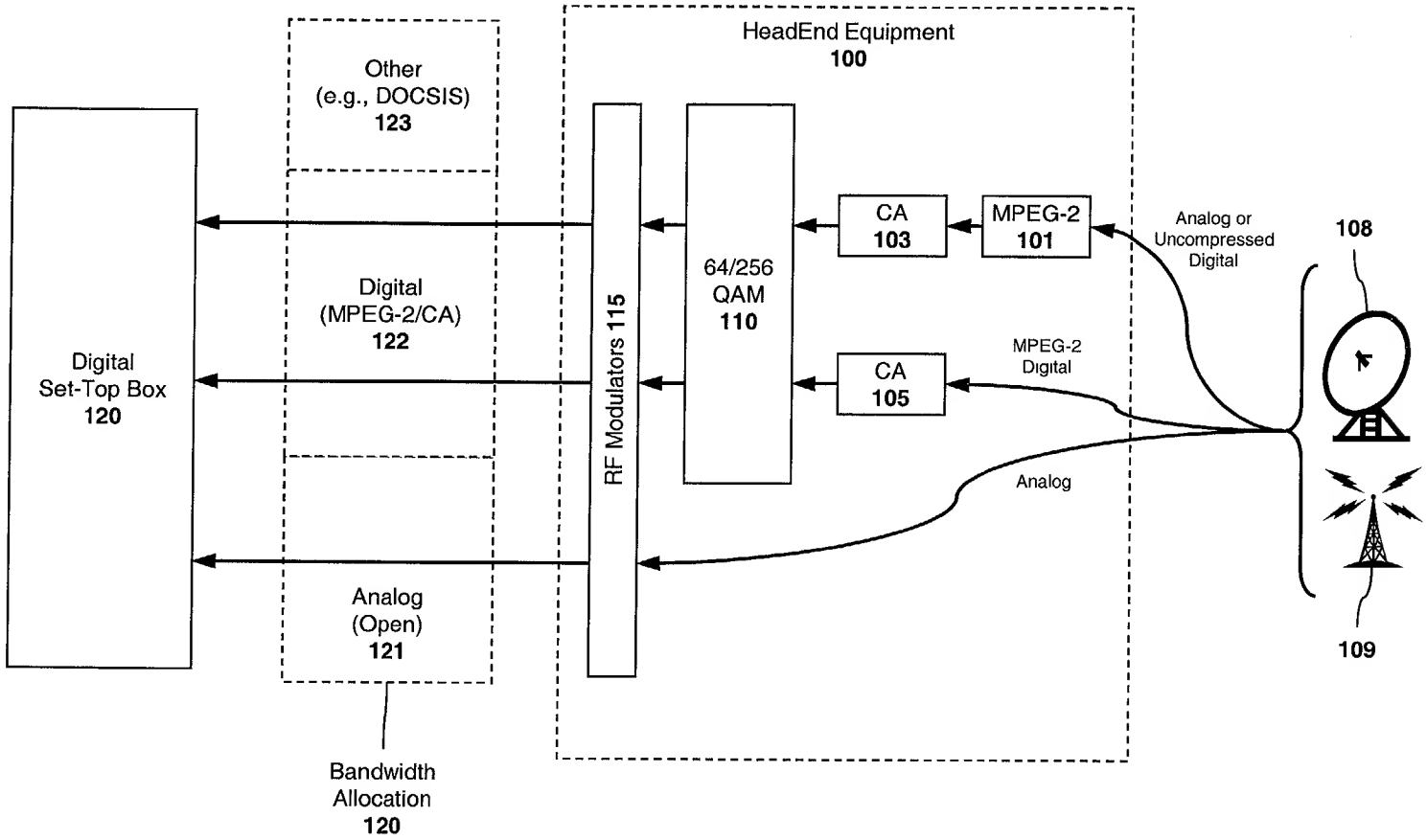

FIG. 1

(prior art)

TOOES0" 2HST2860

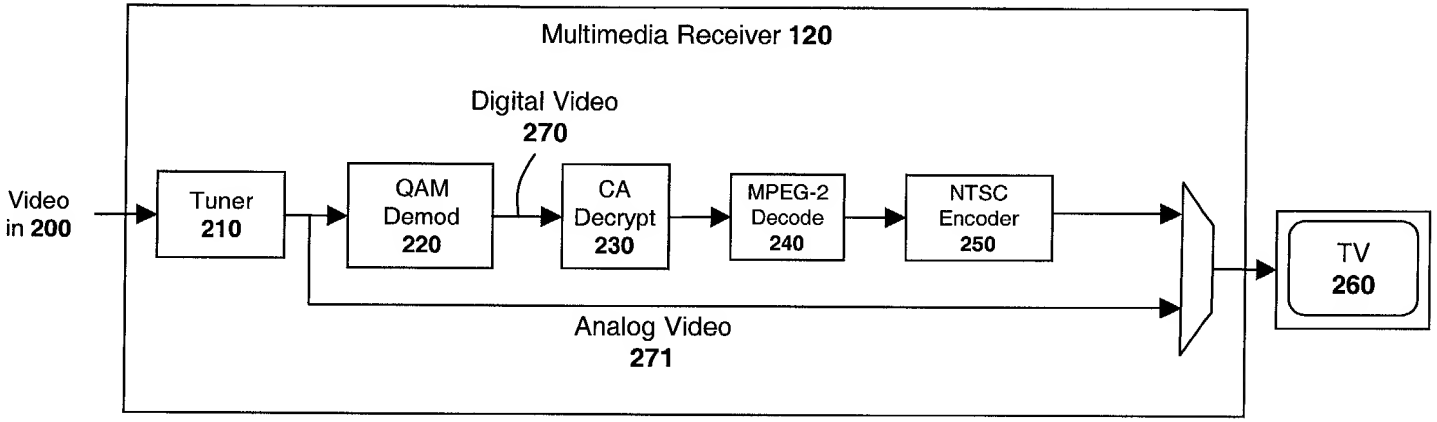

FIG. 2
(prior art)

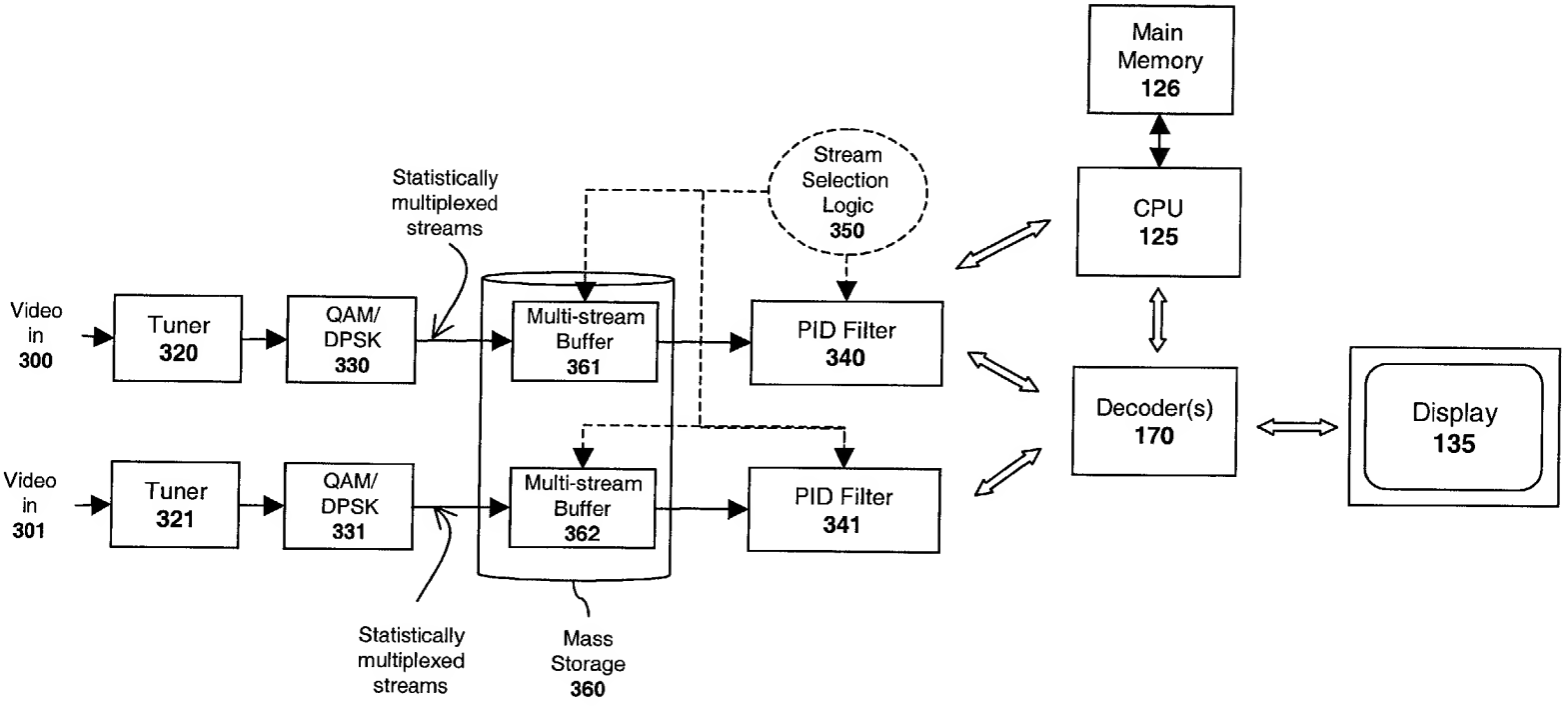
Main Memory 126
CPU 125
Stream Selection Logic 350
Statistically multiplexed streams
Video in 300
Tuner 320
QAM/ DPSK 330
Multi-stream Buffer 361
PID Filter 340
Video in 301
Tuner 321
QAM/ DPSK 331
Multi-stream Buffer 362
PID Filter 341
Decoder(s) 170
Display 135
Statistically multiplexed streams
Mass Storage 360

FIG. 3

TOOE50" 24ST2860

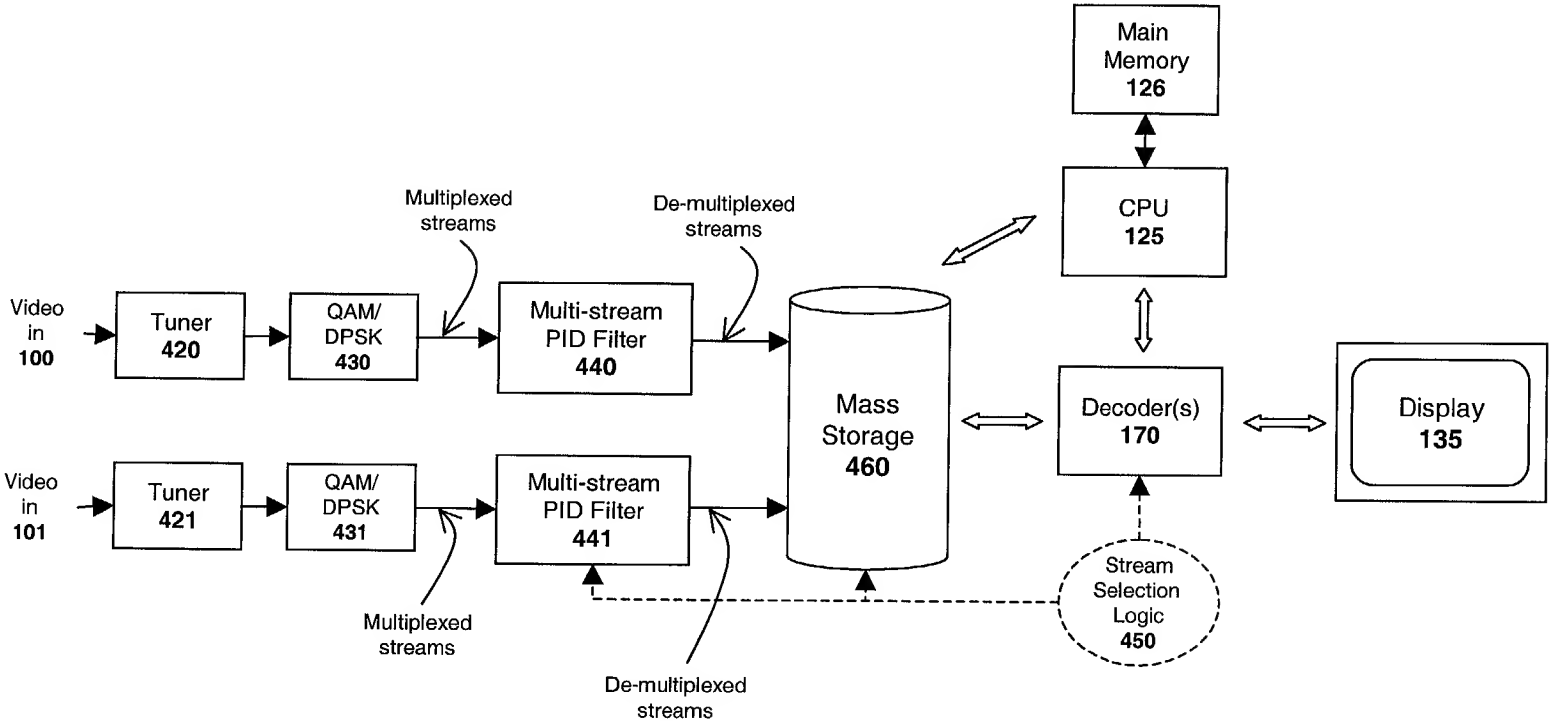

FIG. 4

TOOE90" 2HST2860

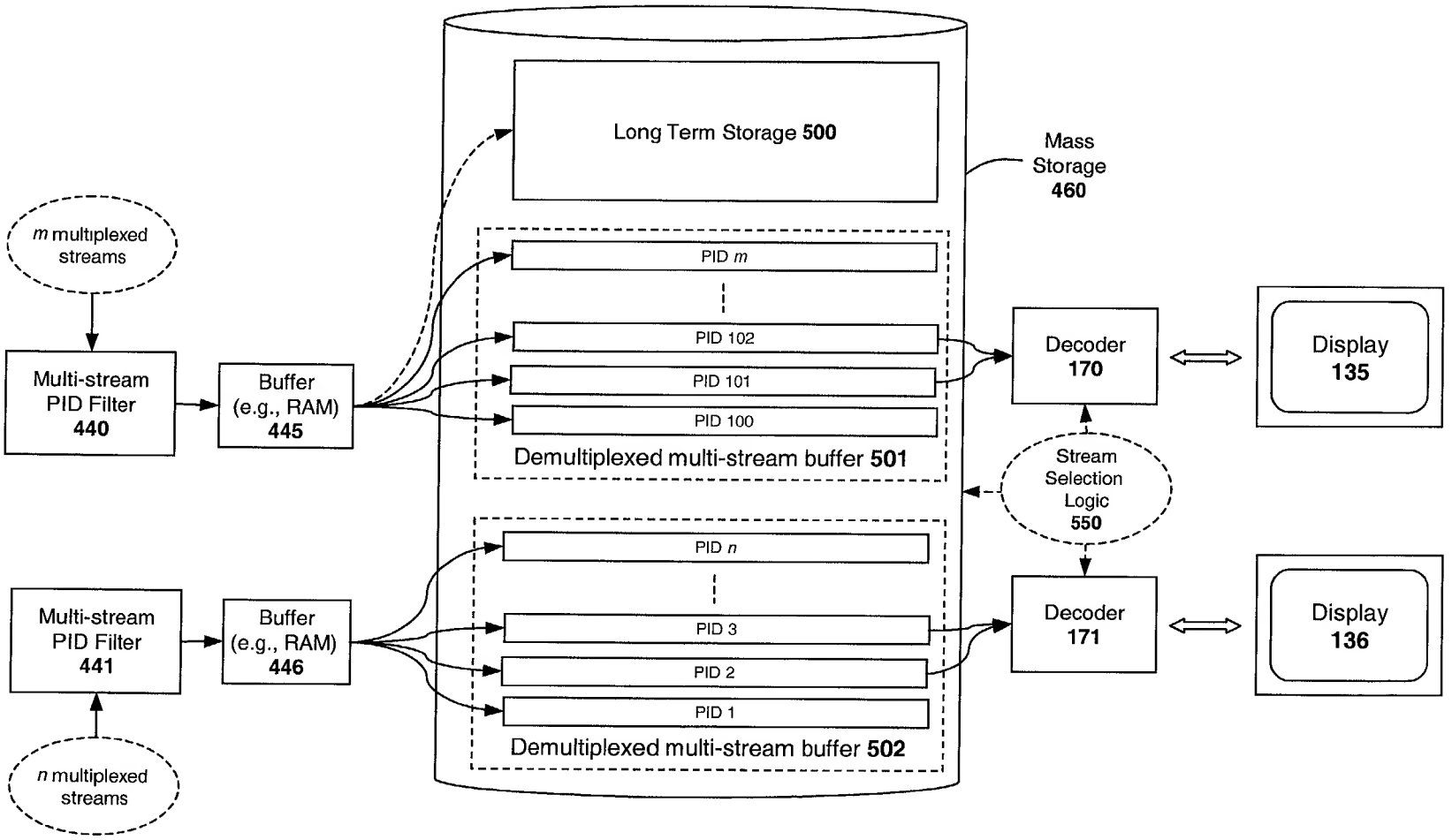

FIG. 5

T00650 "4ST4360

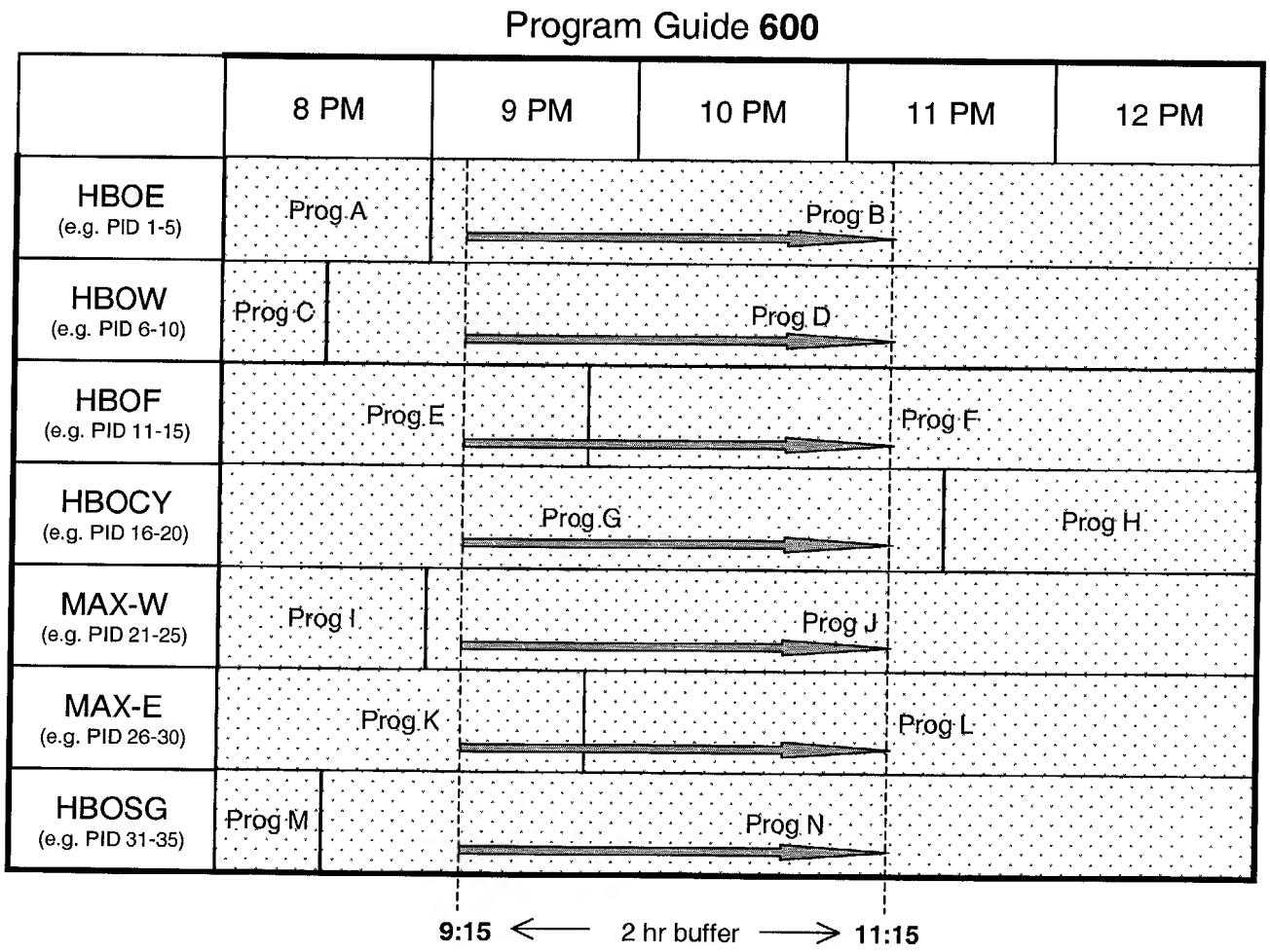

FIG. 6

TOOE50" 2h5T2860

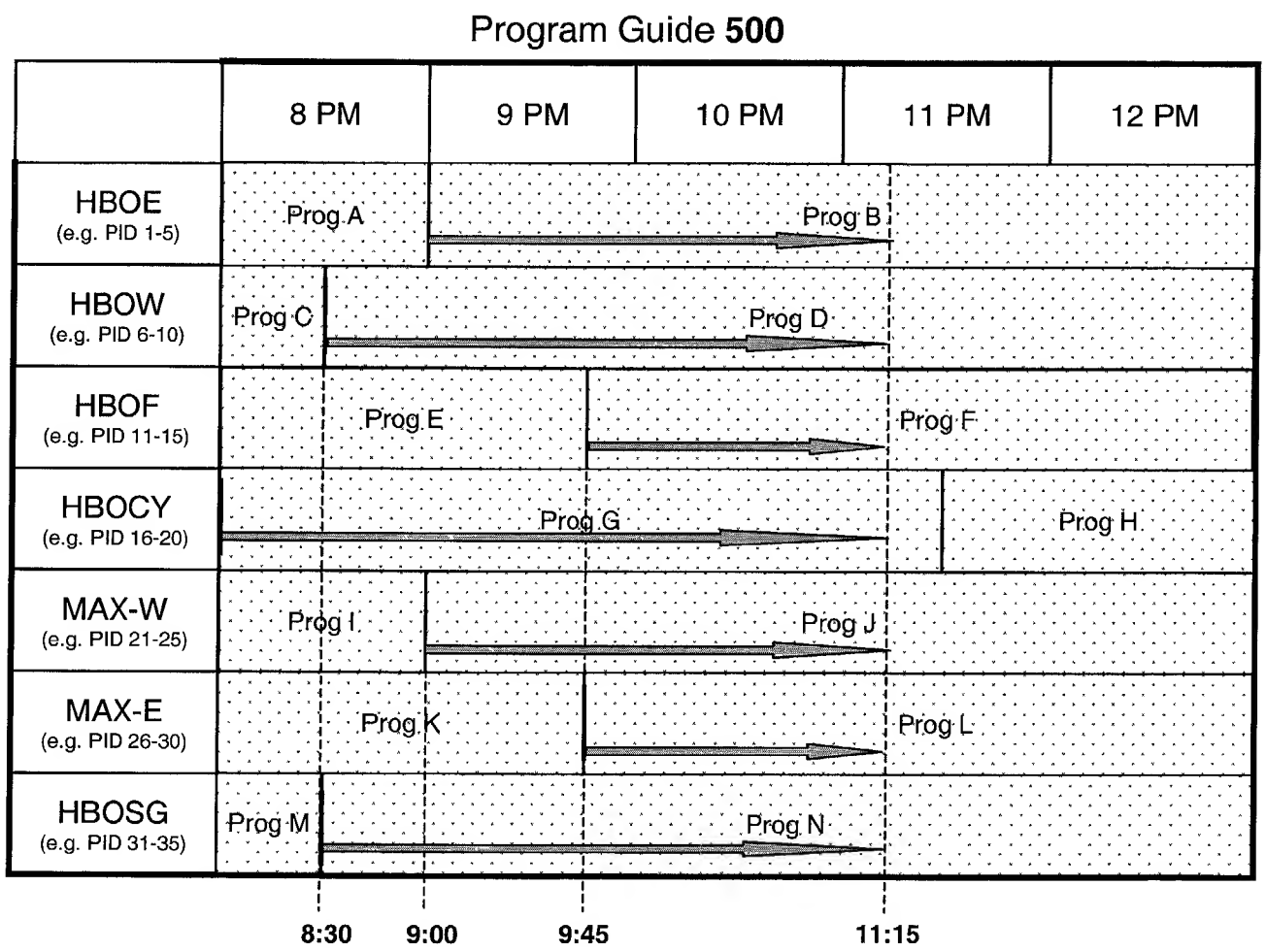

FIG. 7

TOOE50 245T2860

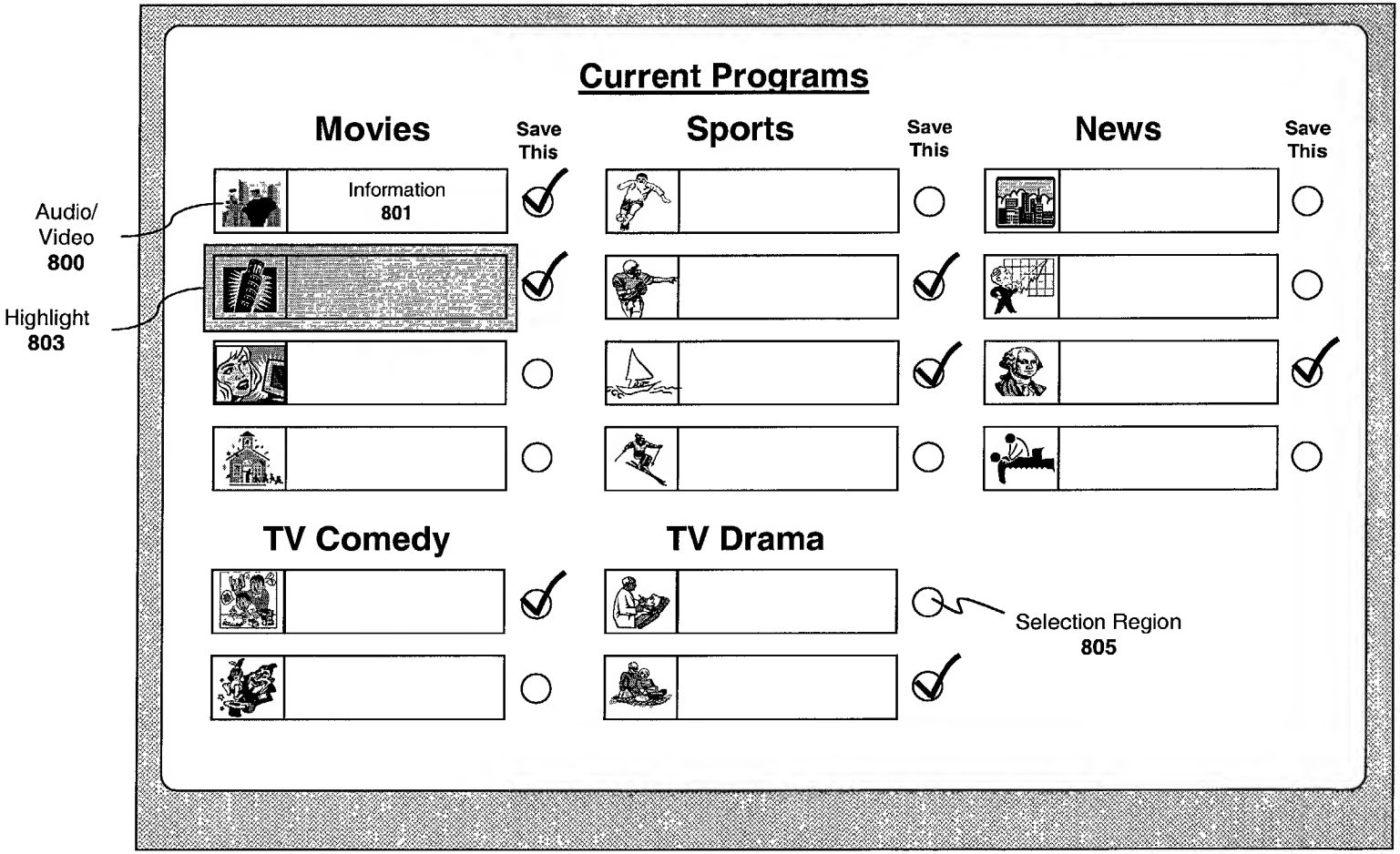

FIG. 8

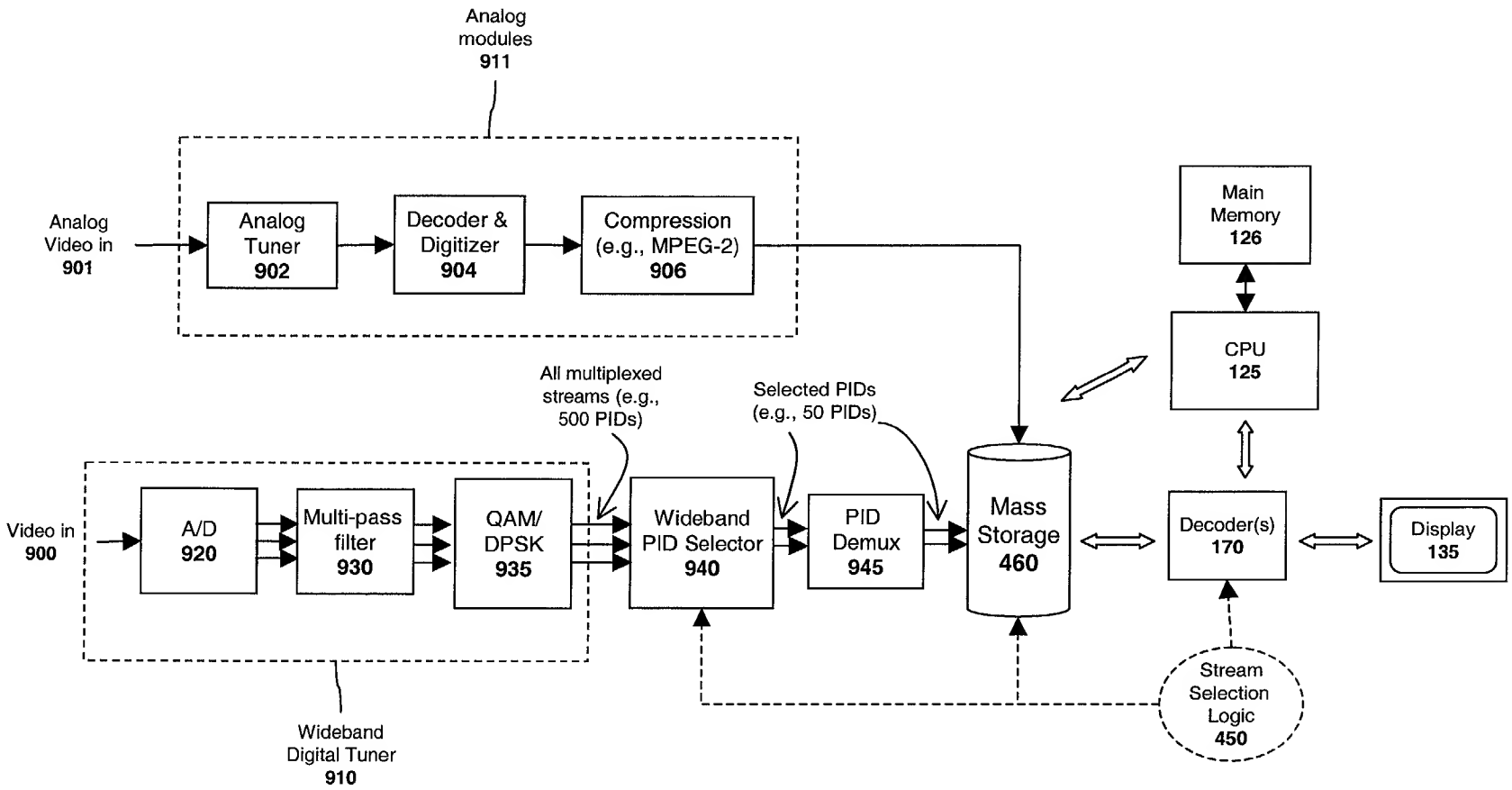
Analog modules 911
Analog Video in 901
Analog Tuner 902
Decoder & Digitizer 904
Compression (e.g., MPEG-2) 906
Main Memory 126
CPU 125
All multiplexed streams (e.g., 500 PIDs)
Selected PIDs (e.g., 50 PIDs)
Video in 900
A/D 920
Multi-pass filter 930
QAM/ DPSK 935
Wideband PID Selector 940
PID Demux 945
Mass Storage 460
Decoder(s) 170
Display 135
Stream Selection Logic 450
Wideband Digital Tuner 910

FIG. 9

TOOE5O" 2ht5T2860

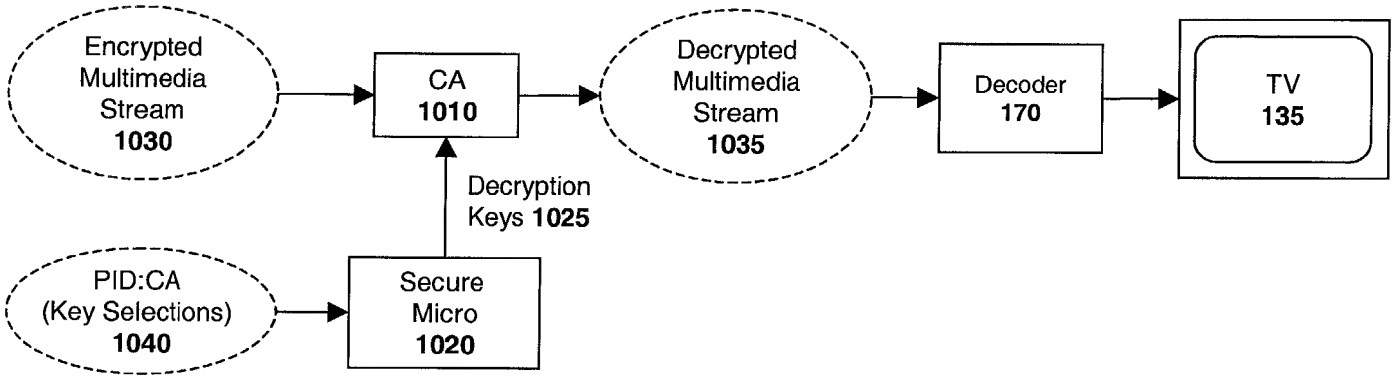

FIG. 10

TOOES0" 2HST2860

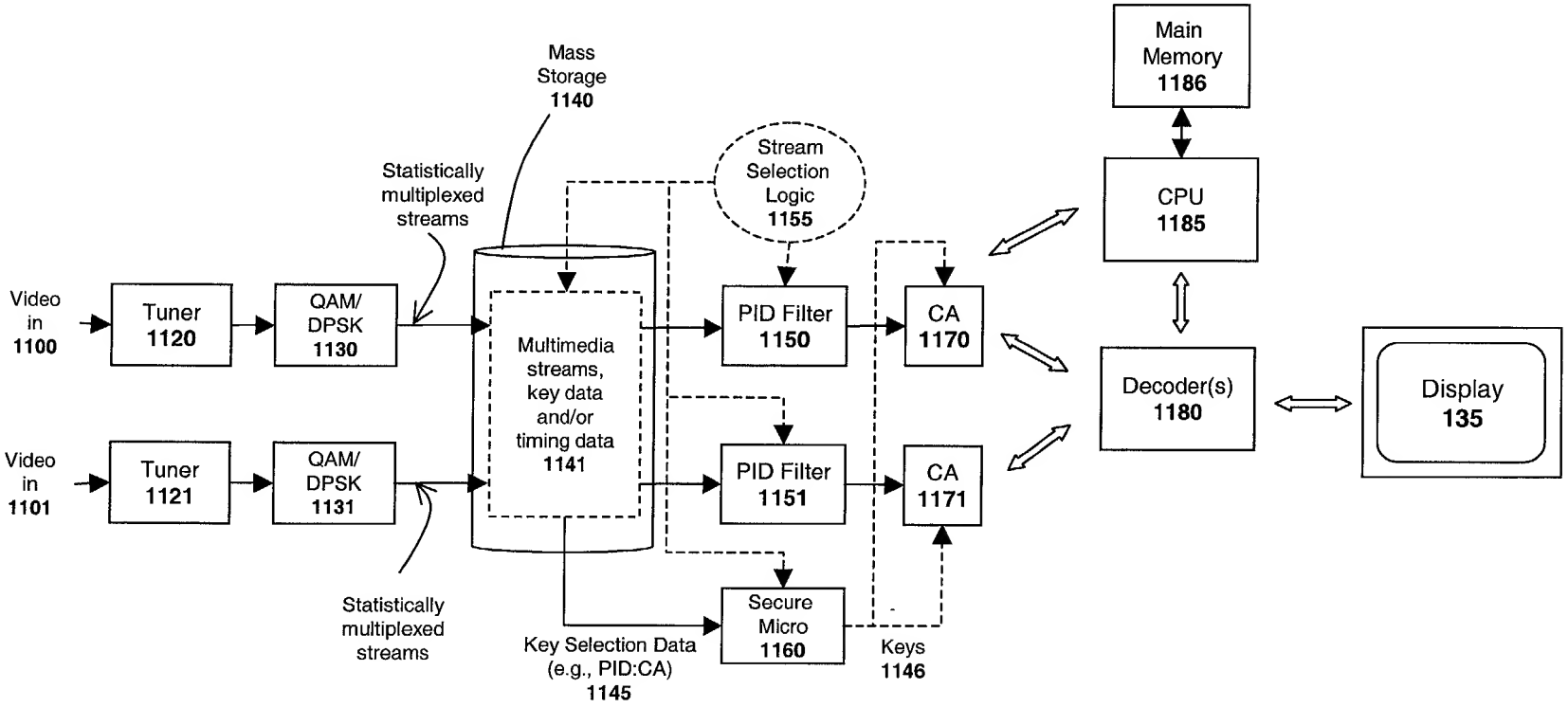

FIG. 11

T00650 "4ST2860

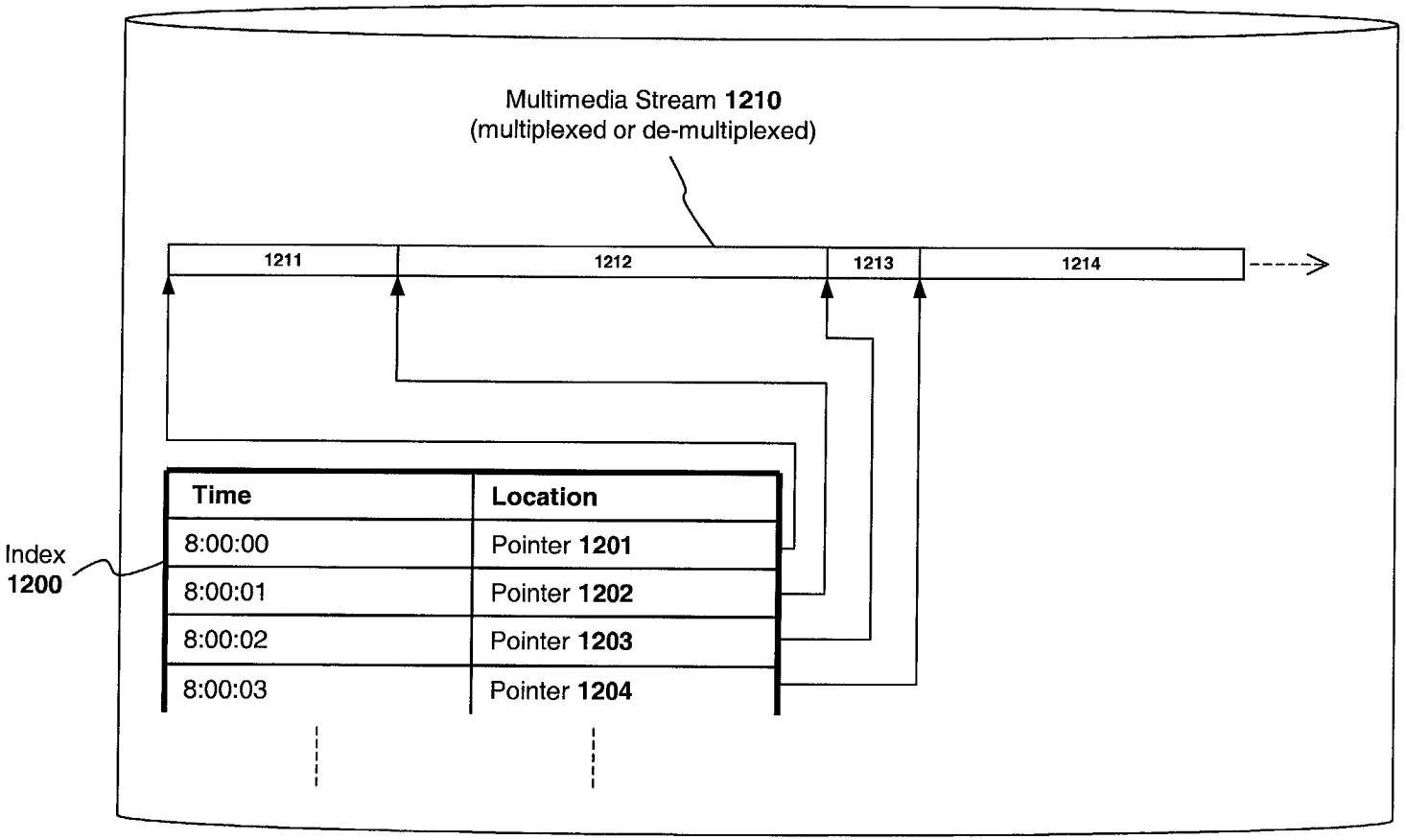

FIG. 12

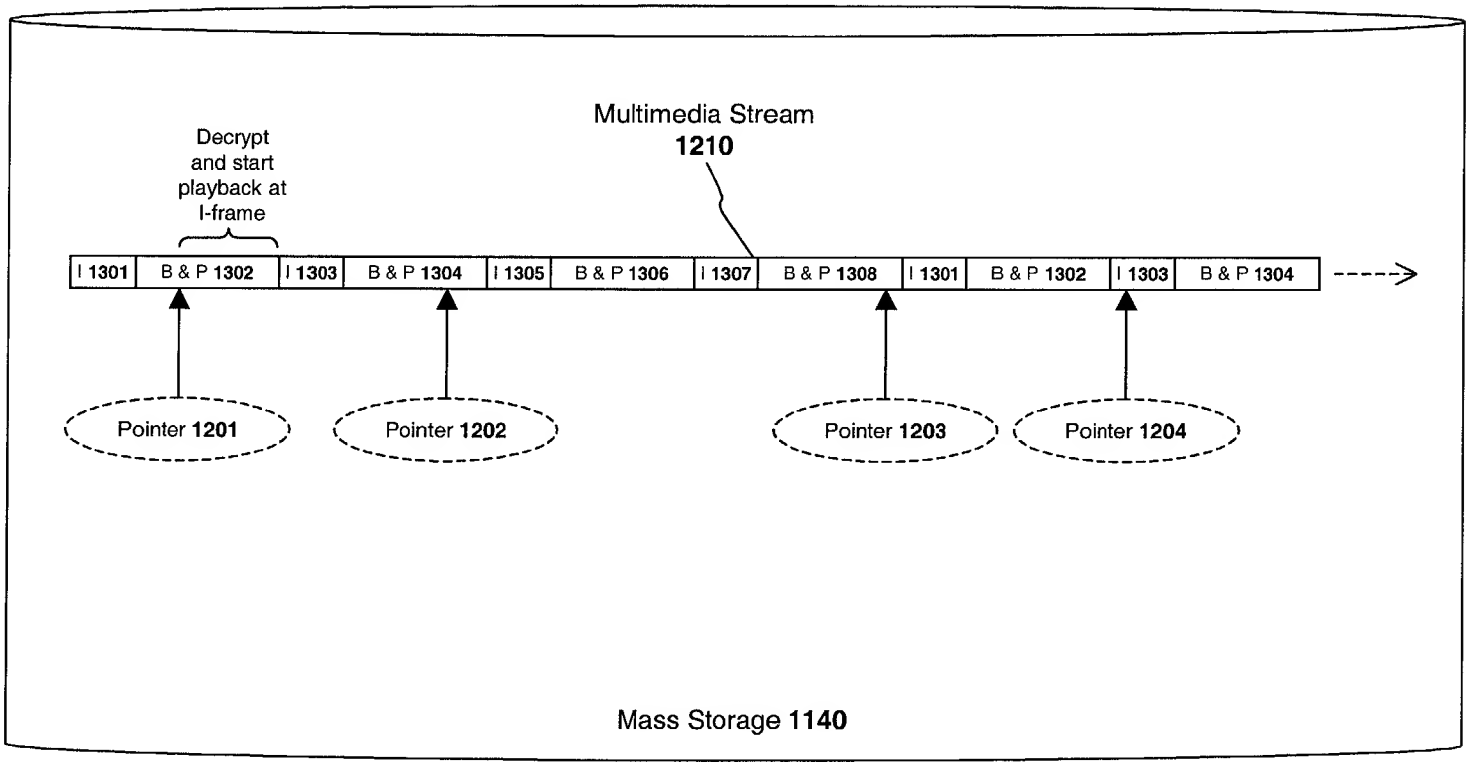
Multimedia Stream
1210
Decrypt and start playback at I-frame
I 1301
B & P 1302
I 1303
B & P 1304
I 1305
B & P 1306
I 1307
B & P 1308
I 1301
B & P 1302
I 1303
B & P 1304
Pointer 1201
Pointer 1202
Pointer 1203
Pointer 1204
Mass Storage 1140

FIG. 13

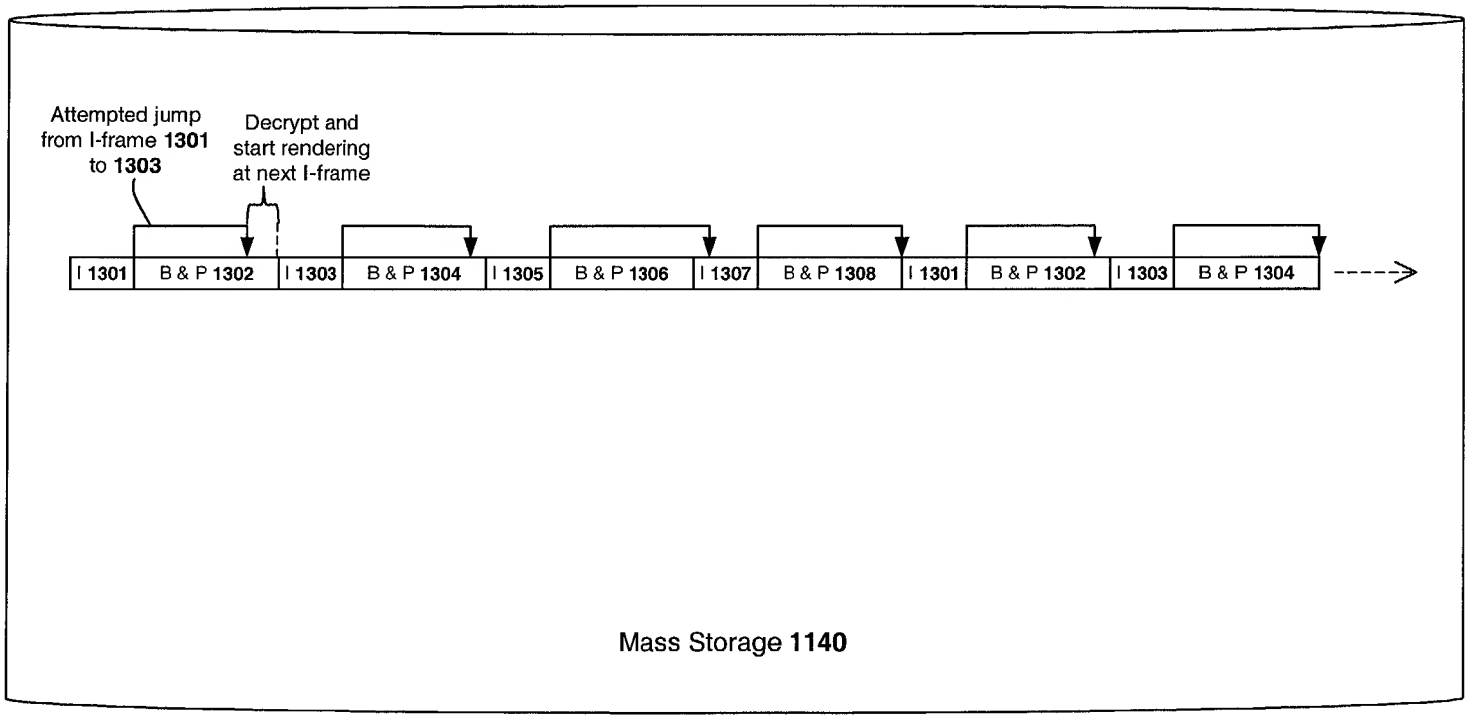
Attempted jump from I-frame 1301 to 1303
Decrypt and start rendering at next I-frame
I 1301
B & P 1302
I 1303
B & P 1304
I 1305
B & P 1306
I 1307
B & P 1308
I 1301
B & P 1302
I 1303
B & P 1304
Mass Storage 1140

FIG. 14

TOOE50" 24ST2860

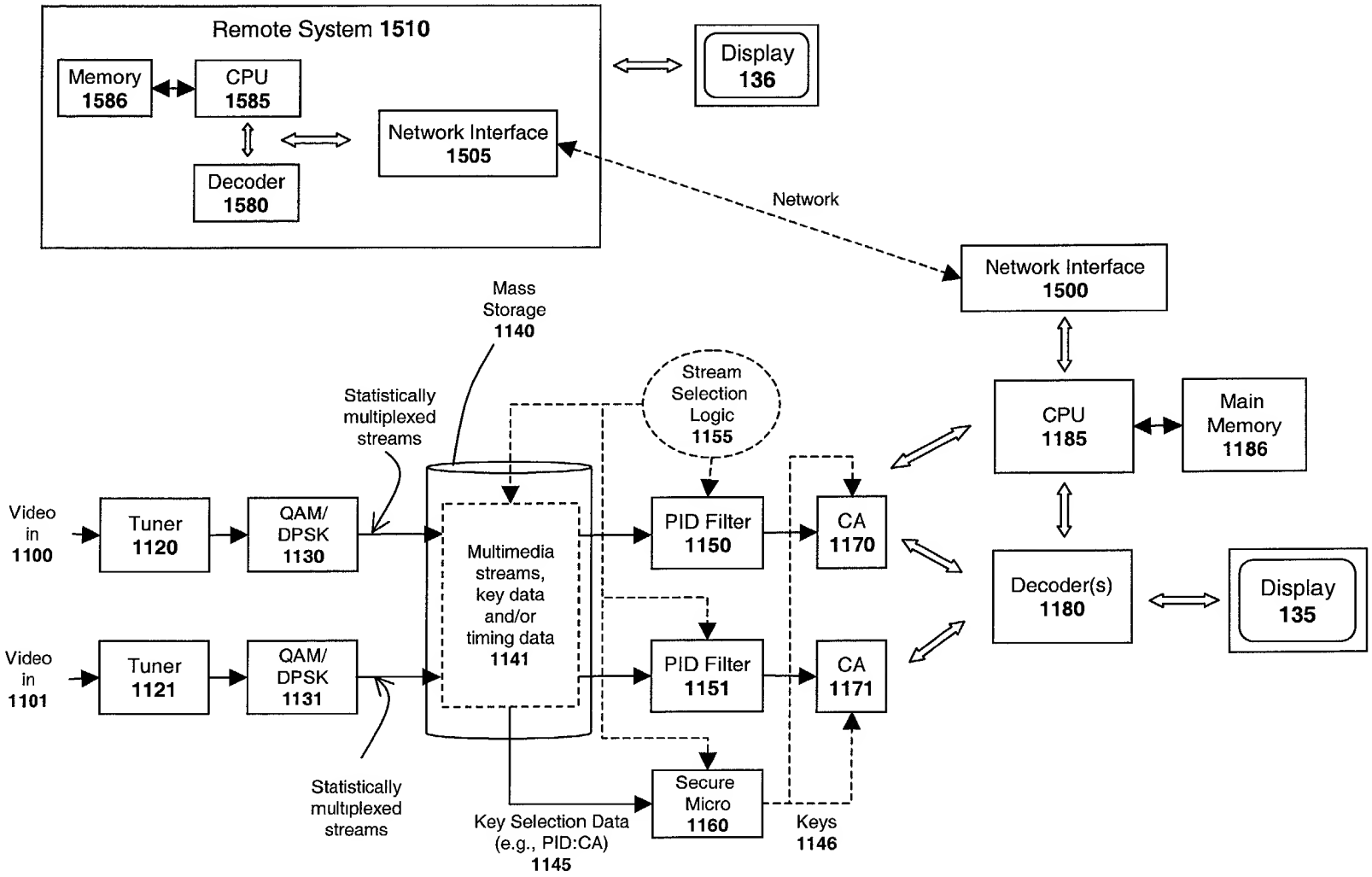

FIG. 15

T00ES0' 2hSE2860

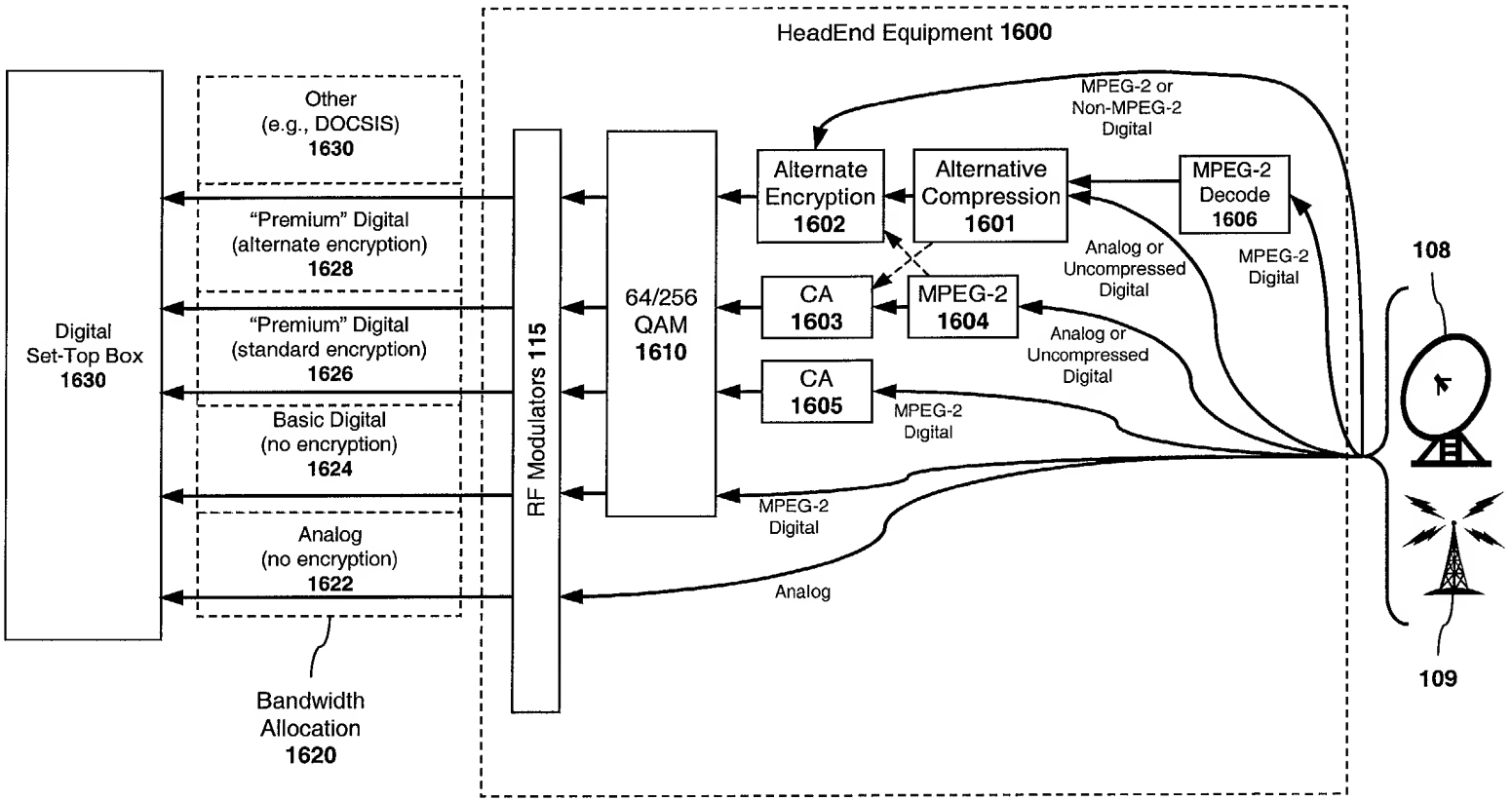

FIG. 16

T00E50" 4hST2860

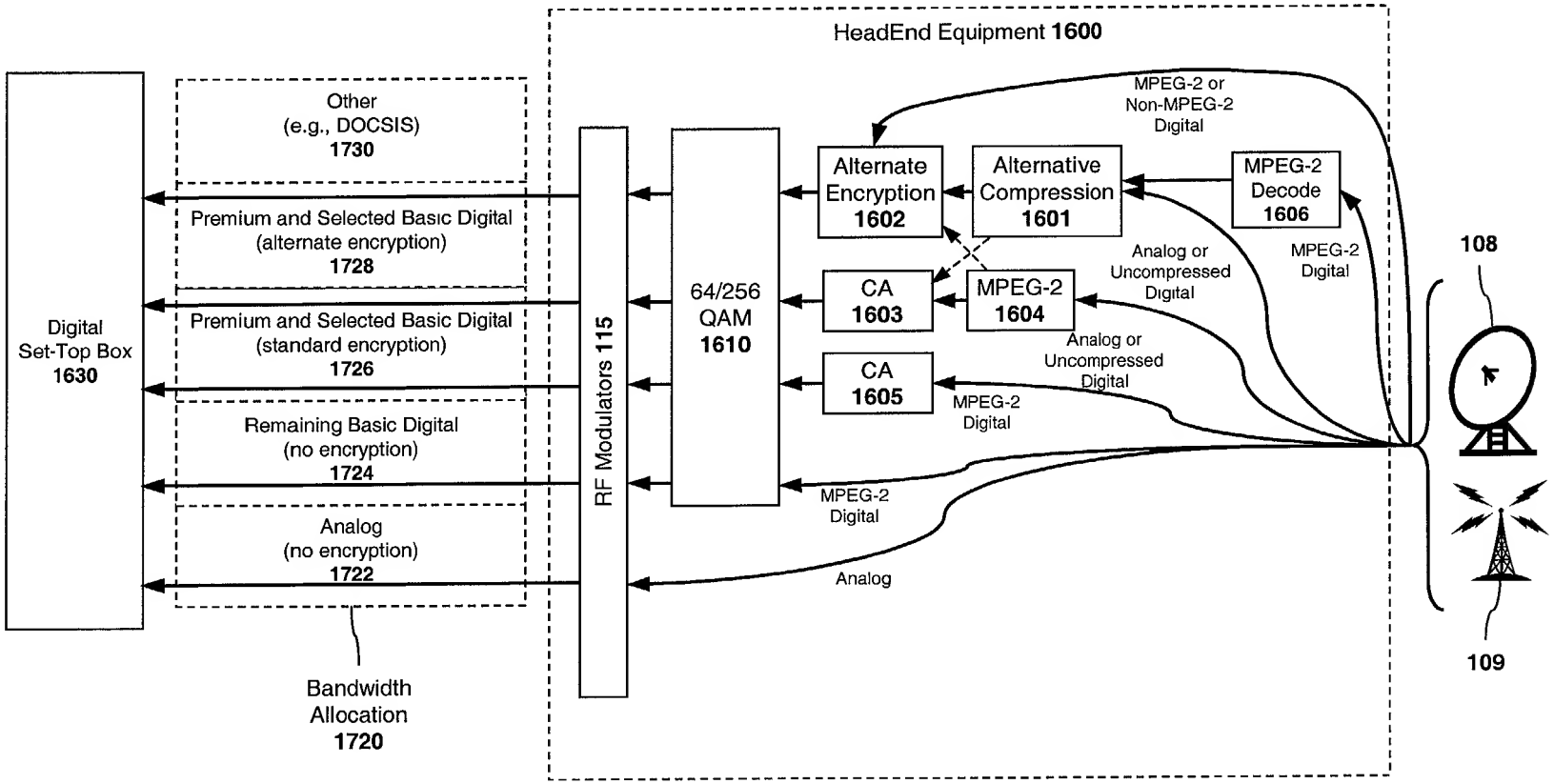

FIG. 17

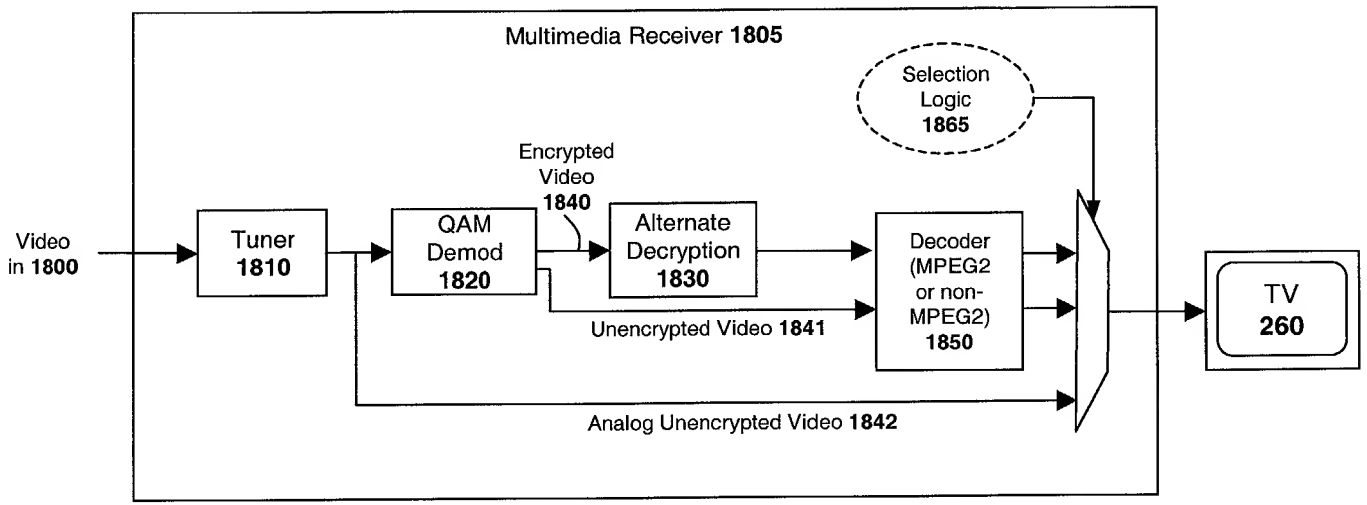
Multimedia Receiver 1805
Selection Logic 1865
Encrypted Video 1840
Video in 1800
Tuner 1810
QAM Demod 1820
Alternate Decryption 1830
Decoder (MPEG2 or non-MPEG2) 1850
TV 260
Unencrypted Video 1841
Analog Unencrypted Video 1842

FIG. 18

TOOES0" 4ASTA860

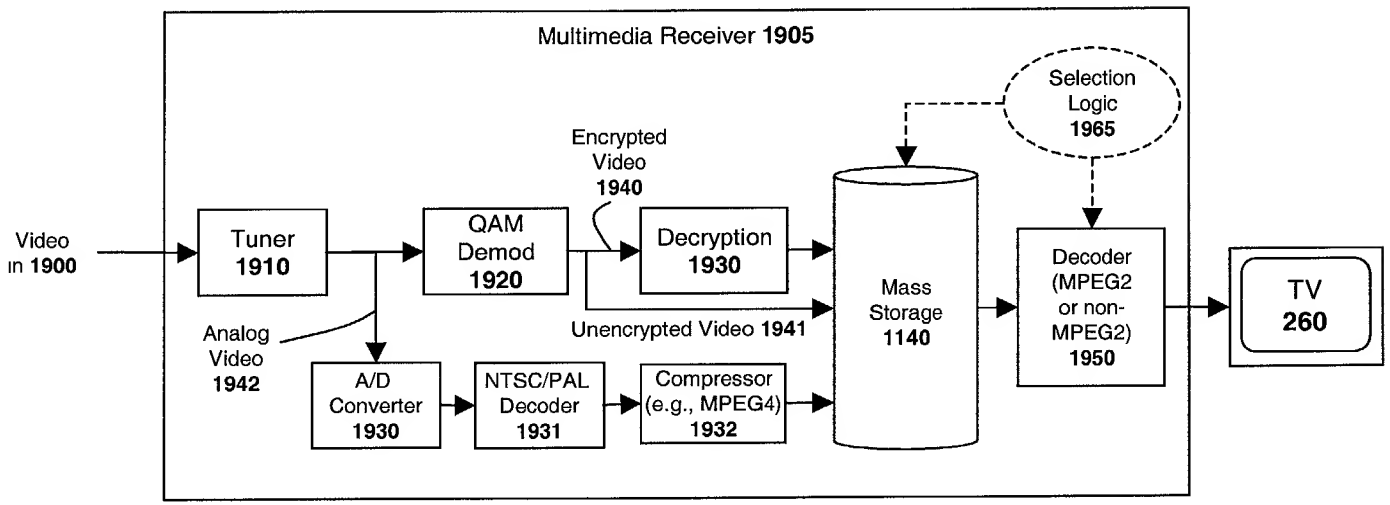

FIG. 19

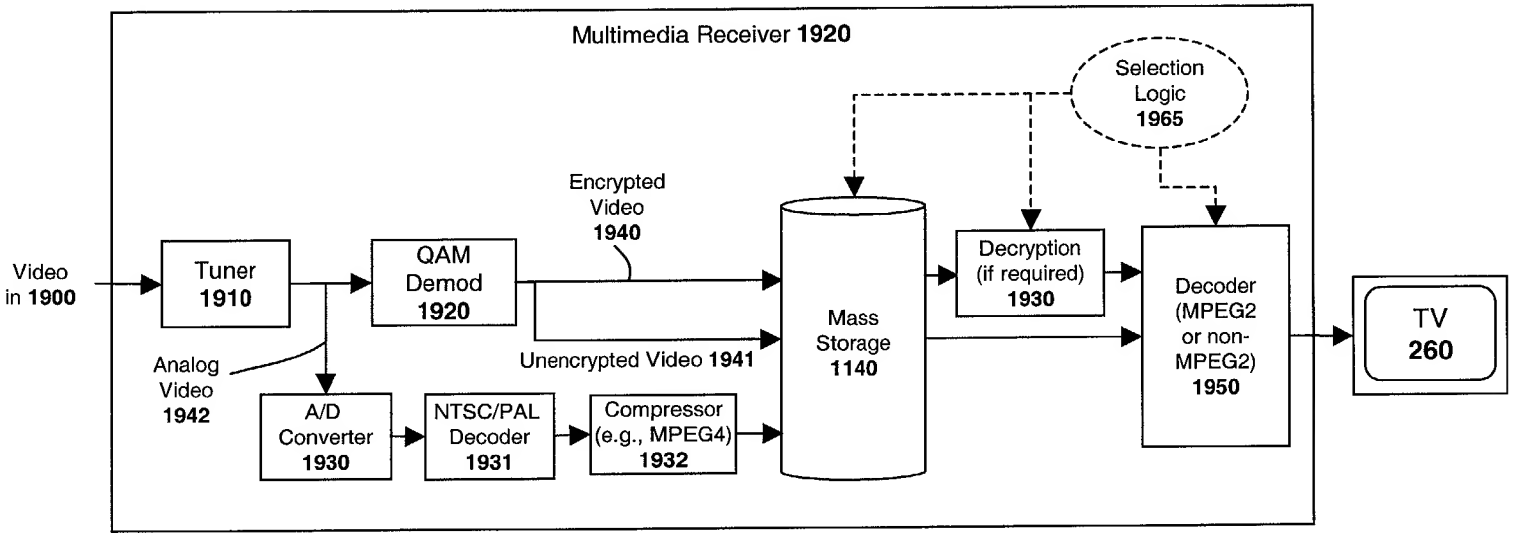
Multimedia Receiver 1920
Selection Logic 1965
Video in 1900
Tuner 1910
QAM Demod 1920
Encrypted Video 1940
Unencrypted Video 1941
Analog Video 1942
A/D Converter 1930
NTSC/PAL Decoder 1931
Compressor (e.g., MPEG4) 1932
Mass Storage 1140
Decryption (if required) 1930
Decoder (MPEG2 or non-MPEG2) 1950
TV 260

FIG. 20

TOOE50 "ZHSTZ860

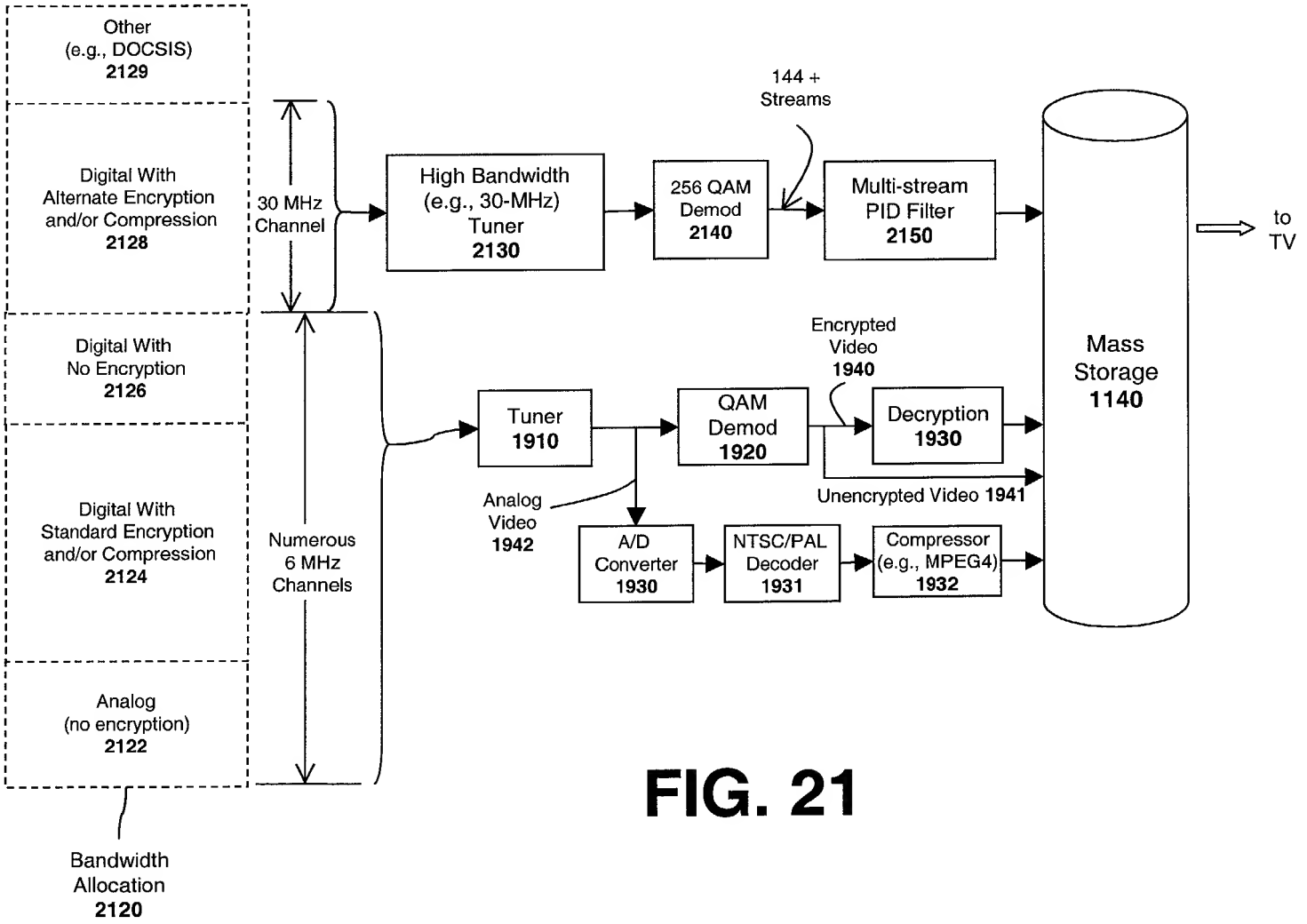

FIG. 21

T00650 "4ST4860

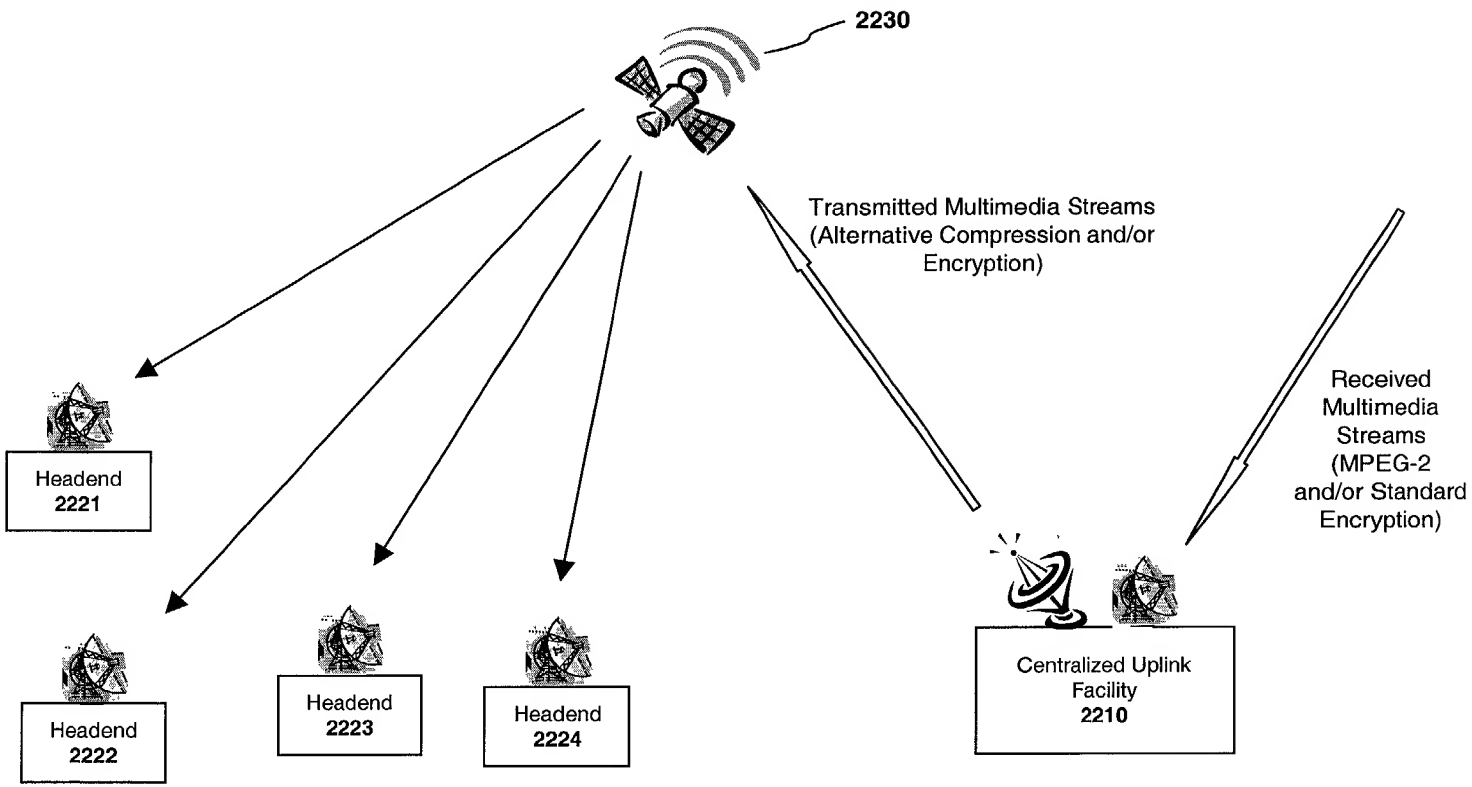

FIG. 22